

Datasheet Relay 4HP

REL-304-D-01

The Grenton Relay 4HP (High Power) module enables switching of 4 different high power devices (e.g. light, electric heating, electrical sockets). The module is equipped with the energy consumption measurement bridge to allow power measurement of the connected device / receiver.



1. Parameters - DOUT

Features:	
Value	Returns 1 for output set at On and 0 for output set at Off state
VoltageType	0 - AC, 1 - DC, signal
VoltageValue	Voltage value
Power	Returns power in watts
Overload	Maximum value of Power characteristic after exceeding which the OnOverload event is generated
DistributedLogicGroup	Distributed Logic group - broadcast group for distributed logic
Methods:	
SetValue	Sets output state to 1 or 0
Switch	Changes the output value from 0 to 1 or from 1 to 0. The first parameter is the time of change: 0 - switches output to continuous mode, number - switches output for a time specified by a parameter (in milliseconds)
SwitchOn	Sets output value to 1
SwitchOff	Sets output value to 0
SetVoltageType	Sets voltage type
SetVoltageValue	Sets voltage value
SetOverload	Sets overload value
Events:	
OnValueChanged	Occurs when a change in the state takes place (regardless of the value)
OnSwitchOn	Occurs when On(1) is set at output
OnSwitchOff	Occurs when Off(0) is set at output
OnOverload	Occurs when power value is equal or higher than overload value

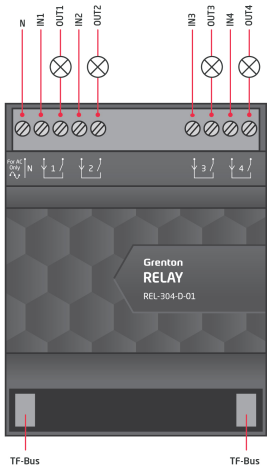
2. Parameters - PowerSupplyVoltage

Features:	
Value	Current output value taking into account the scalar
Value %	Current percentage input value of the maximum value (MaxValue characteristic)
Sensitivity	Minimum change of input state when the OnValueChanged, OnValueLower or OnValueRise event is generated
MinValue	Minimum value of the Value characteristic after exceeding which the OnOutOfRange event is generated
MaxValue	Maximum value of the Value characteristic after exceeding which the OnOutOfRange event is generated
Methods:	
SetSensitivity	Sets input sensitivity value
SetMinValue	Sets MinValue
SetMaxValue	Sets MaxValue
Events:	
OnValueChanged	Event resulting from changing input state
OnValueLower	Event occurs when a value lower than the value from the last reading appears at input
OnValueRise	Event occurs when a value higher than the value from the last reading appears at input
OnOutOfRange	Event resulting from exceeding the permissible range (MinValue : MaxValue)
OnInRange	Event occurs when value returns to MinValue/MaxValue range

3. Technical Data

Device power supply	24V _{dc}
Maximum power consumption	2.4W
Maximum device current	100mA (for 24V _{dc})
Rated load voltage	230V _{ac} or 24V _{dc}
Maximum load current per channel:	
AC1	16A / 250V _{ac}
AC15 (e.g. electromagnet)	1.5A / 240V _{ac}
DC1	16A / 24V _{dc}
DC13 (e.g. electromagnet)	0.22A / 120V _{dc}
Maximum load power per channel:	
AC3 (single-phase motor)	750W / 240V _{ac}
Minimum breaking capacity	1W
Maximum output current inrush per channel (20ms)	80A
Relay type	N0, inrush
Max. wire cross section	2.5mm ²
Weight	169g
Size [DIN]	4
Fixing	Electrical box, rail DIN-3 / TH 35 / TS 35
Dimensions (H/W/D)	90/72/58mm
Operating temperature range	0 to +45°C

4. Wiring Diagram



N	Neutral signal (for AC only)
IN1	first channel input
OUT1	first channel output
IN2	second channel input
OUT2	second channel output
IN3	third channel input
OUT3	third channel output
IN4	fourth channel input
OUT4	fourth channel output

- 'N' signal is necessary only for 230V_{ac} loads for switch condition optimization.

5. Warnings and Cautionary Statements



ATTENTION !

- Before proceeding with the assembly, read the installation schematics and full instructions available at www.grenton.com. Failure to follow the guidelines contained in the instructions and other requirements of due care valid as a result of the nature of the equipment (device) may be dangerous to life / health, damage the device or installation to which it is connected, damage

other property or violate other applicable regulations. The manufacturer of the device, Grenton Sp. z o.o. does not bear any responsibility for the damage (property and non-property related) resulting from the assembly and / or use of the equipment not in accordance with the instructions and / or due diligence in handling the equipment (device).

- Device power supply, permissible load or other characteristic parameters have to be in accordance with the device specification, described in particular in the "Technical data" section.
- The product is not intended for children and animals.
- If you have technical questions or comments about the device operation, contact Grenton Technical Support.
- Answers to frequently asked questions can be found at: www.support.grenton.com.



DANGER !

- Danger to life caused by electric current!
- The components of the installation (individual devices) are designed to work in a home electrical installation or directly in its

vicinity. Incorrect connection or use may cause a fire or electric shock.

- All work related to the installation of the device, in particular works involving interference in the electrical installation, may be performed only by a person with appropriate qualifications or licences.
- When installing the device, make sure that the power supply voltage is disconnected from the circuit in which the device is connected or near which the assembly takes place.

6. CE Marking

The manufacturer declares that the device is in full compliance with the requirements of EU legislation that includes the directives of a new approach appropriate for this equipment. In particular, Grenton Sp. z o.o. declares that the device fulfills the requirements on safety, specified by law, and that it conforms

to the national regulations that implement the appropriate directives: The Directive on the electromagnetic compatibility (EMC - 2014/30/UE) and the Directive on the limitation of the use of specific substances in electrical and electronic equipment (RoHS II - 2011/65/UE).



7. Warranty

Warranty available at www.grenton.com/warranty.

8. Manufacturer Contact Details

Grenton Sp. z o.o.,
ul. Na Wierzchowiach 3
30-222 Kraków, Poland
www.grenton.com